(FILE 'HOME' ENTERED AT 16:19:05 ON 09 JUL 2002)

L8

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT' ENTERED AT 16:19:24 ON 09 JUL 2002 1995 S (PERISTALTIC PUMP) L1L2 312 S L1 AND PRESSURE? L3 495 S L1 AND MICRO? L4 65 S L2 AND L3 L5 1 S L4 AND VACUUM? 0 S L2 AND ARRAY? L6 9 S L1 AND ARRAY? L7

9 DUPLICATE REMOVE L7 (0 DUPLICATES REMOVED)

```
1997:783808 CAPLUS
AN
DN
     128:1681
ΤI
     Portable modular blood analyzer with simplified fluid handling sequence
     Savage, Douglas R.; Lawrence, Ronald L.
IN
     Sendx Medical, Inc., USA
PA
     PCT Int. Appl., 31 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
IC
     ICM G01N035-10
CC
     9-1 (Biochemical Methods)
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                            19971127
                                           WO 1997-US8737
                                                            19970520
PΙ
     WO 9744672
                      A1
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
             GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
             ML, MR, NE, SN, TD, TG
                            19991109
                                           US 1996-650341
                                                            19960520
     US 5980830
                      Α
     AU 9730767
                       Α1
                            19971209
                                           AU 1997-30767
                                                            19970520
     EP 990158
                            20000405
                                           EP 1997-925710
                                                            19970520
                      Α2
         R: DE, FR, GB, IT
PRAI US 1996-650341
                            19960520
     WO 1997-US8737
                            19970520
AB
     A portable, modular blood analyzer capable of analyzing multiple blood
     values in an inexpensive, relatively simple, easy-to-use and
     easy-to-maintain instrument. The invention comprises a three-part system
     including an analyzer body, calibrant cartridge, and sensor cartridge.
     modular calibrant cartridge is insertable into the analyzer body, and
     contains all necessary calibrant fluids as well as a waste container.
     modular sensor cartridge having integral pump tubing plugs into the
     analyzer body for easy removal and replacement of the sensor elements.
     The analyzer body internally has modular units including an electronics
     module, a display module, and a fluidics/printer module. The analyzer
     uses a single pump head to aspirate blood only to a sensor array
     within the sensor cartridge. This action is accomplished by aspirating
     blood by rotating a peristaltic pump in one direction
     during a first portion of an anal. cycle, and by reversing the pump and
     flushing the blood from the sensor cartridge with fluid pumped from the
     opposite direction during a second portion of an anal. cycle.
     Accordingly, blood contacts only a small portion of the analyzer
     mechanism, most of which is disposable. Because all valves are downstream
     from the single pump, no blood products pass through any valves.
     analyzer fluid handling section is easily cleaned by removal of the sensor
     cartridge, yielding a single tube pathway. A short path length for blood
     travel permits using blood samples as small as 200 .mu.l. The analyzer is
     light and modular in design and is fully automatic.
ST
     portable modular blood analyzer
TΤ
     Blood analysis
        (Portable modular analyzer; portable modular blood analyzer with
        simplified fluid handling sequence)
ΙT
     Pumps
        (peristaltic; portable modular blood analyzer with simplified fluid
        handling sequence)
IT
        (portable modular blood analyzer with simplified fluid handling
```

ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS

L8

sequence)

(FILE 'HOME' ENTERED AT 16:19:05 ON 09 JUL 2002)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT' ENTERED AT 16:19:24 ON 09 JUL 2002

1995 S (PERISTALTIC PUMP)

312 S L1 AND PRESSURE?

495 S L1 AND MICRO?

65 S L2 AND L3

-

L1

L2L3

L4

L5

L6 L7

L8

1 S L4 AND VACUUM?

0 S L2 AND ARRAY?

9 S L1 AND ARRAY?

9 DUPLICATE REMOVE L7 (0 DUPLICATES REMOVED)

- L8 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS
- AN 1992:583786 CAPLUS
- DN 117:183786
- TI Automated analysis of plutonium solutions over a wide range
- AU Burns, D. A.; Wangen, L. E.; Mendoza, P.; Randow, M.; Lujan, E.; Temer, D. J.; Jackson, D.
- CS Chem. Laser Sci. Div., Los Alamos Natl. Lab., Los Alamos, NM, 87545, USA
- SO Proc. Int. Conf. Facil. Oper.-Safeguards Interface, 4th (1992), Meeting Date 1991, 213-19 Publisher: Am. Nucl. Soc., La Grange Park, Ill. CODEN: 58EFAK
- DT Conference
- LA English
- CC 79-2 (Inorganic Analytical Chemistry)
   Section cross-reference(s): 71
- AB A system is described that automates the spectrophotometric anal. of plutonium solns. over the concn. range 40-250 g/L. Segmented-Flow Anal. (SFA) has been employed with the following system component: an ISCO autosampler, Vitro Technologies flow cell, an Alpkem multichannel peristaltic pump, a Hewlett-Packard diode array spectrophotometer, an IBM PS/2 computer, and fiber optics. The system operates on a 90-s cycle (60 s sampling and 30 s washing), performs an online 22-fold diln. of an 81-.mu.L sample with the reagent (ascorbic acid in 1N HCl), and generates 2.5 ML of waste per anal. Precision is about 0.2% RSD, and hardcopy output is produced.
- ST plutonium soln analysis automated spectrophotometry
- IT Spectrometers
  - (automated, for anal. of plutonium solns. of wide range)
- IT 7440-07-5, Plutonium, analysis
  - RL: ANST (Analytical study)
    - (anal. of solns. of, by spectrophotometry, automated system for)

```
ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS
     1997:783808 CAPLUS
AN
DN
     128:1681
ΤI
     Portable modular blood analyzer with simplified fluid handling sequence
     Savage, Douglas R.; Lawrence, Ronald L.
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     ICM G01N035-10
CC
     9-1 (Biochemical Methods)
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                          APPLICATION NO.
                                                            DATE
                      ____
ΡI
                     A1
                            19971127
                                         WO 1997-US8737
     WO 9744672
                                                            19970520
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
             GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
             ML, MR, NE, SN, TD, TG
     US 5980830
                      Α
                            19991109
                                           US 1996-650341
                                                            19960520
                            19971209
     AU 9730767
                      Α1
                                           AU 1997-30767
                                                            19970520
     EP 990158
                      Α2
                            20000405
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             DE, FR, GB, IT
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PRAI US 1996-650341
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AΒ
     A portable, modular blood analyzer capable of analyzing multiple blood
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     modular sensor cartridge having integral pump tubing plugs into the
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     uses a single pump head to aspirate blood only to a sensor array
     within the sensor cartridge. This action is accomplished by aspirating
     blood by rotating a peristaltic pump in one direction
     during a first portion of an anal. cycle, and by reversing the pump and
     flushing the blood from the sensor cartridge with fluid pumped from the
     opposite direction during a second portion of an anal. cycle.
     Accordingly, blood contacts only a small portion of the analyzer
     mechanism, most of which is disposable. Because all valves are downstream
     from the single pump, no blood products pass through any valves.
     analyzer fluid handling section is easily cleaned by removal of the sensor
     cartridge, yielding a single tube pathway. A short path length for blood
     travel permits using blood samples as small as 200 .mu.l. The analyzer is
     light and modular in design and is fully automatic.
ST
     portable modular blood analyzer
     Blood analysis
        (Portable modular analyzer; portable modular blood analyzer with
        simplified fluid handling sequence)
```

ΙT

ΙT

(peristaltic; portable modular blood analyzer with simplified fluid handling sequence)

IT

(portable modular blood analyzer with simplified fluid handling sequence)

```
ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS
     1982:478800 CAPLUS
AN
DN
     97:78800
TI
     Microencapsulated acetylsalicylic acid. An automatic spectrophotometric
     method for release determination
     Bongiovanni, G.; Giani, C.; Innocenti, F.; Maccari, M.; Pogliano, L.
ΑIJ
CS
     Cinisello Balsamo, Eurand Italia Spa, Milan, Italy
SO
     Boll. Chim. Farm. (1982), 121(3), 106-16
     CODEN: BCFAAI; ISSN: 0006-6648
DT
     Journal
     English
T.A
CC
     63-5 (Pharmaceuticals)
     Section cross-reference(s): 64
GI
       CO<sub>2</sub>H
       OAc
             Ι
AB
     A continuous automatic method for the detn. of per cent release over time
     of microencapsulated acetylsalicylic acid (ASA)(I)
                                                          [50-78-2] in a single
     buffer soln. at pH 1.3 is described. The automatic line comprises a
     6-position Rotating Paddle App. (USP XX), a 6-channel peristaltic
     pump, and a computerized spectrophotometer capable of reading
     simultaneously and in real time, in 6 cells of 2 mm optical length, the
     absorbances of the 6 solns. by direct spectrophotometry at 278 nm.
     results, assessed statistically, are in excellent agreement with those
     obtained with the well-tested manual method (Rotating Bottle). Two-factor
     variance anal. shows that the variability assocd. with the position factor
     is not statistically significant; also, by cumulating that variability
     with the residual error (casual variability), the mean coeff. of variation
     for the whole array of measurements is only 1.34%.
     aspirin release microcapsule spectrophotometry
ST
ΙT
     50-78-2
     RL: BIOL (Biological study)
         (release of, from microencapsulated prepns., automatic
        spectrophotometry for detn. of)
\Gamma8
     ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS
ΑN
     1977:160920 CAPLUS
     86:160920
DN
ΤI
     REX, a computer controlled robot for in situ water quality monitoring
ΑU
CS
     Sci. Support Div., Canada Cent. Inland Waters, Burlington, Ont., Can.
     ASTM Spec. Tech. Publ. (1975), 573 (Water Qual. Parameters, Symp., 1973),
SO
     437-55
     CODEN: ASTTA8
DT
     Journal
LA
     English
CC
     61-2 (Water)
AB
     A new, computer-oriented system for effective in-situ monitoring of water
     quality comprises a sensing head consisting of a peristaltic
     pump, a servo positioned valve, an array of 6 electrodes
     (2 glass pH, 3 Ag-AgCl and 1 Au microelectrode) and a thermistor, along
     with buffer amplifiers and motor controllers to serve these devices. The
     main feature is its design as a remote computer periferal, like a
     teletype, which understands up to 64 different commands and which returns
     coded responses. The entire sensor head is submersible and operable in
     depths to 100 m. The working system monitors temp., cond., pH, dissolved
     O, Cl-, total CO2, total alky. and a factor called other ions.
     monitor computer controlled water; ion detn water computer monitor
ST
ΙT
     Sampling
         (of water, computer controlled robot for)
ΙT
     7732-18-5, analysis
     RL: ANST (Analytical study)
```

(monitoring of, computer controlled robot for)

ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS L8 1992:583786 CAPLUS AN DN 117:183786 Automated analysis of plutonium solutions over a wide range ΤI Burns, D. A.; Wangen, L. E.; Mendoza, P.; Randow, M.; Lujan, E.; Temer, D. ΑU J.; Jackson, D. Chem. Laser Sci. Div., Los Alamos Natl. Lab., Los Alamos, NM, 87545, USA CS SO Proc. Int. Conf. Facil. Oper.-Safeguards Interface, 4th (1992), Meeting Date 1991, 213-19 Publisher: Am. Nucl. Soc., La Grange Park, Ill. CODEN: 58EFAK DT Conference LĄ English CC 79-2 (Inorganic Analytical Chemistry) Section cross-reference(s): 71 A system is described that automates the spectrophotometric anal. of AΒ plutonium solns. over the concn. range 40-250 g/L. Segmented-Flow Anal. (SFA) has been employed with the following system component: an ISCO autosampler, Vitro Technologies flow cell, an Alpkem multichannel peristaltic pump, a Hewlett-Packard diode array spectrophotometer, an IBM PS/2 computer, and fiber optics. The system operates on a 90-s cycle (60 s sampling and 30 s washing), performs an online 22-fold diln. of an 81-.mu.L sample with the reagent (ascorbic acid in 1N HCl), and generates 2.5 ML of waste per anal. Precision is about 0.2% RSD, and hardcopy output is produced.

ST plutonium soln analysis automated spectrophotometry

IT Spectrometers

IT

(automated, for anal. of plutonium solns. of wide range)

7440-07-5, Plutonium, analysis

RL: ANST (Analytical study)

(anal. of solns. of, by spectrophotometry, automated system for)

```
ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS
, AN
      1982:478800 CAPLUS
 DN
       97:78800
      Microencapsulated acetylsalicylic acid. An automatic spectrophotometric
 ΤI
       method for release determination
       Bongiovanni, G.; Giani, C.; Innocenti, F.; Maccari, M.; Pogliano, L.
 ΑU
       Cinisello Balsamo, Eurand Italia Spa, Milan, Italy
 CS
       Boll. Chim. Farm. (1982), 121(3), 106-16
 SO
       CODEN: BCFAAI; ISSN: 0006-6648
 DT
       Journal
 LA
       English
 CC
       63-5 (Pharmaceuticals)
       Section cross-reference(s): 64
 GI
         CO2H
               Ι
         OAc
      A continuous automatic method for the detn. of per cent release over time
 AB
       of microencapsulated acetylsalicylic acid (ASA)(I)
                                                            [50-78-2] in a single
       buffer soln. at pH 1.3 is described. The automatic line comprises a
       6-position Rotating Paddle App. (USP XX), a 6-channel peristaltic
       pump, and a computerized spectrophotometer capable of reading
       simultaneously and in real time, in 6 cells of 2 mm optical length, the
       absorbances of the 6 solns. by direct spectrophotometry at 278 nm. The
       results, assessed statistically, are in excellent agreement with those
       obtained with the well-tested manual method (Rotating Bottle). Two-factor
       variance anal. shows that the variability assocd. with the position factor
       is not statistically significant; also, by cumulating that variability
       with the residual error (casual variability), the mean coeff. of variation
       for the whole array of measurements is only 1.34%.
       aspirin release microcapsule spectrophotometry
 ST
       50-78-2
 ·IT
       RL: BIOL (Biological study)
          (release of, from microencapsulated prepns., automatic
          spectrophotometry for detn. of)
       ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS
 L8
       1977:160920 CAPLUS
 ΑN
 DN
       86:160920
       REX, a computer controlled robot for in situ water quality monitoring
 TI
 ΑU
       Birch, K. N.
       Sci. Support Div., Canada Cent. Inland Waters, Burlington, Ont., Can.
 CS
       ASTM Spec. Tech. Publ. (1975), 573(Water Qual. Parameters, Symp., 1973),
 SO
       437 - 55
       CODEN: ASTTA8
 DΤ
       Journal
 LA
       English
 CC
       61-2 (Water)
       A new, computer-oriented system for effective in-situ monitoring of water
 AB
       quality comprises a sensing head consisting of a peristaltic
       pump, a servo positioned valve, an array of 6 electrodes
       (2 glass pH, 3 Ag-AgCl and 1 Au microelectrode) and a thermistor, along
       with buffer amplifiers and motor controllers to serve these devices. The
       main feature is its design as a remote computer periferal, like a
       teletype, which understands up to 64 different commands and which returns
       coded responses. The entire sensor head is submersible and operable in depths to 100\ m. The working system monitors temp., cond., pH, dissolved
       O, Cl-, total CO2, total alky. and a factor called other ions.
       monitor computer controlled water; ion detn water computer monitor
 ST
 IT
       Sampling
          (of water, computer controlled robot for)
       7732-18-5, analysis
 IT
       RL: ANST (Analytical study)
```

(monitoring of, computer controlled robot for)

- 8

(FILE 'HOME' ENTERED AT 16:19:05 ON 09 JUL 2002)

```
FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT' ENTERED AT 16:19:24 ON
     09 JUL 2002
L1
           1995 S (PERISTALTIC PUMP)
L2
            312 S L1 AND PRESSURE?
L3
            495 S L1 AND MICRO?
L4
             65 S L2 AND L3
L5
             1 S L4 AND VACUUM?
              0 S L2 AND ARRAY?
L6
L7
              9 S L1 AND ARRAY?
              9 DUPLICATE REMOVE L7 (0 DUPLICATES REMOVED)
L8
    FILE 'ADISALERTS, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,
     BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT,
     CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DGENE, DRUGB,
     DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, DRUGUPDATES, .' ENTERED AT
     16:45:37 ON 09 JUL 2002
L9
          14522 S (PERISTALTIC PUMP)
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L9 14522 S (PERISTALTIC PUMP)
L10 0 S L9 AND MICRPLATE?
L11 86 S L9 AND MICROPLATE?
L12 86 DUPLICATE REMOVE L11 (0 DUPLICATES REMOVED)
L13 44 S L12 AND VACUUM?
L14 29 S L13 AND PRESSURE?
L15 9 S L14 AND ARRAY?

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			US-PGPUB	i
-	5	(albumin SAME renal SAME disease) SAME	USPAT;	2002/07/08 15:03
		detect	US-PGPUB	
-	5	(albumin SAME renal SAME disease) SAME	USPAT;	2002/07/08 15:03
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-	15	(	USPAT;	2002/07/08 17:41
		detection	US-PGPUB	
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			US-'PGPUB	
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]			US-PGPUB	
-	59	(( (422/100 and gasket) and plate) AND	USPAT;	2002/07/08 17:46
		pump) AND vacuum	US-PGPUB	